

Creativity – a new perspective?

In this article, Pierre Roxburgh, Director of Technology for the Foundation of Human Advancement, contends that creative thought is available to all of us. That the difference between the average person and "highly creative" individuals is the degree of free flow communication between the foreground and background areas of the brain.

Traditional perspectives on creativity have been confined to the "thought" paradigm. In other words, creativity has always been perceived as a type of thinking, a specific process which produces valuable results.

The great Dr de Bono himself classified his wonderfully successful "lateral thinking" tools as a method – ways of using the mind to restructure firmly embedded patterns which preclude immediate consideration of viable alternatives. He prescribes various techniques of thought provocation: "In lateral thinking, one is not looking for the right answer, but for a different arrangement of information which will provoke a different way of looking at things." All of which, hopefully, leads to a resolution of the problem at hand.

De Bono's model describes the mind as a "self-maximising memory system" and notes that this places limitations on thought. Lateral thinking is a mechanism designed to overcome these limitations by exploiting de Bono's assumptions about the way the mind works.

Purists might object to the words "model" and "assumptions" being used in the context of de Bono's developments. His credentials and results remain impeccable even when scrutinised under the most sceptical of spotlights. However, don't lose sight of the fact that, when dealing with human thought processes, there can never be objectively observable phenomena available to researchers. Short of the emer-



gence of some revolutionary neurological apparatus, and the co-operation of laboratory subjects willing to have their heads carved open, you have to resign yourself to investigating merely the manifestations of thought. So, any attempt to explain how the mind works can only be a model or set of assumptions at best.

When Kepler produced a mathematical model of planetary motion, he used it to predict events in the solar system with an extreme degree of accuracy. And such is the way of progress: models are tested against the "real world" to determine whether or not they have substance.

Applying the same testing procedure to de Bono's work, we find unquestionably that his tools do facilitate the creative process. And because these tools were developed directly as a result of his conclusions about the way the mind operates, we must accept that his model has a certain amount of validity.

However, for a model to be beyond reproach, it must explain all real world phenomena within its frame of reference.

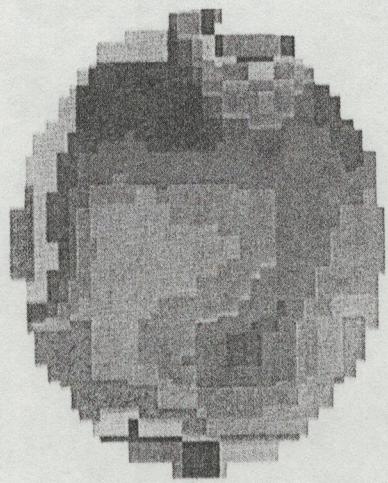
De Bono's renowned handbook is geared towards showing so-called ordinary people how to utilise practical mechanisms which lead to innovative outcomes. What about already "highly creative" people? Does it necessarily follow that they are natural lateral thinkers? Can it be concluded that all examples of innovation result from some or other variation of de Bono's methods?

Consider the concept of "revelation" – something which is related to our intuitive understanding of creativity. It is a rare person indeed who will not admit to experiencing fleeting moments of unsurpassed clarity of perception. Moments where it seems that a scenario just pops into the mind, apparently from nowhere. And, more often than not, the revelation occurs without the individual being even remotely preoccupied with its content.

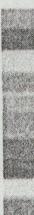
Creative personnel in advertising agencies frequently report such experiences, but are unable to rationalise them. Expressions such as "it just sort of came to me," or "it must have been in the back of my mind," are the closest they ever come to explaining the "moments of revelation". At no stage can they reconstruct a sequence of thought along the lines of...

"I was wondering if... and then I said no, that's not it, but then I said... let's assume that... ummm... AAAAH!... That's the way to do it!"

The whole nature of such incidents points to a dynamic at work which does not conform to previously advanced models of mental functioning. It would seem that we're not dealing with a "process of thought" in the traditional sense. There is no set of mind-based events which can be sequenced and categorised as leading to a moment of reve-



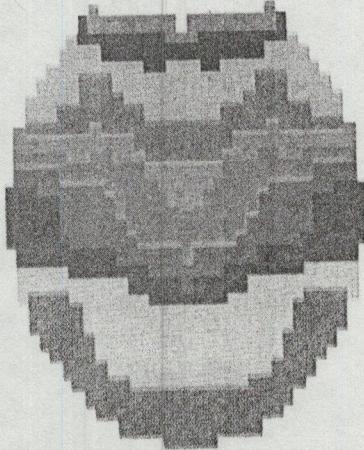
Minimum Amplitude



Maximum Amplitude

These diagrams are topographic contour maps of electrical activity within the neocortex of the human brain put out by a NRS-24 neuromapper, monitoring in the frequency range 4-8 Hz (Theta activity).

At left is a typical map of a subject in a normal, everyday state. Note lack of symmetry and randomness of the pattern. At right is the map of the same subject after a short period of exposure to Hemi-Sync signals. The symmetry and coherence of the pattern are clearly visible.



lation. It merely, well, happens! Consequently, we have to look elsewhere for an explanation. But where, is the question.

CREATIVE ABOUT CREATIVITY

A good point of departure would be to apply de Bono's own system to the problem of creativity itself. This might seem to be a bit self-referential, but the technique is no stranger to computer scientists. They love "plugging something into itself" in order to arrive at a more acceptable variant. So let's be creative about creativity. Here goes...

(For those unfamiliar with Dr de Bono's work, PO is the basic tool of his creative system. It is a word which signals that a statement is about to be made which falls outside conventional frames of reference. It is an excuse for the creator to suspend critical faculties while alternatives are explored.)

PO, we all possess a parallel thought-processing system which operates continuously, and we're not aware of it.

Exiting from PO mode, we stand back and look at the results. The first question that comes to mind is, if such a system is in existence, how can we gauge whether or not it's doing anything useful? Well, if the PO statement is true, it would go a long way to explaining moments of revelation; that is, as brief glimpses of the results of the parallel processing environment which intrude usually when they're least expected.

To short circuit a lengthy process, a theoretical model of human thought which includes the parallel system (the FB model) is presented below:

1. The mind consists of a de Bono-esque component called the foreground – conventional thought and allied processes – as well as a background component which operates unobtrusively and has very little interaction with the foreground.

2. The background does, however, draw on raw material available to the foreground system, but does not limit its activities to this input.

3. The degree of influence that the background system exercises over the foreground has, as yet, not been established. But, it seems that the decision to influence the foreground via so-called "moments of revelation" is taken by the background system.

4. Unshackled by the constraints of "external reality" and years of behavioural conditioning, the background is free to consider possibilities and pursue avenues (and acquire knowledge?) which are not normally available to the foreground.

5. Although the foreground is not aware of background activity, the background always monitors what's going on in the foreground and may or may not choose to get involved. When it does choose to get involved in the contents of the foreground, the timing of such involvement appears to be whimsical in nature. It could occur immediately, but seems to hold itself off until the most inconvenient moment!

What has all this got to do with creativity? Moments of revelation which appear from "nowhere" are usually neatly packaged, self-contained units which enlighten the grateful foreground

recipient. The "creative" nature of this enlightenment is due in part to the content of the package, and partly to the impact of the experience on the individual. Whether or not the background concerns itself purely with creative processing is unimportant. However, the observable effect of the revelation is always one of creative insight.

MECHANISM REQUIRED

So, what is missing from this picture? The model explains the "moment of revelation" phenomenon, but can it be practically applied to augment the creative ability of the foreground system? Clearly, what is required is a mechanism which opens the flow of communication between background and foreground. Also, the foreground must control the process. For example. During a brainstorming session, participants must be able to interrogate the background modality and receive feedback on potentially innovative solutions.

Now that the "what?" has been established, all we need is the "how?" How is this to be achieved? How can we possibly get individuals to access a latent part of the mind of which they are unaware. Images of people sitting there chanting, "come in, background! Are you there? Come in background, over!" spring to mind. This is unsatisfactory at best. To solve this one, we again resort to lateral thinking.

PO, the mind needs help from the outside in order to integrate foreground and background.

Exit, PO mode. Somewhere in Virginia, USA, there is a privately

funded research organisation called The Monroe Institute, which has been checking out the effects of sound waves on human consciousness for the last 25 years. They have found that specific combinations of sound produce objectively measurable changes in brain wave patterns. Furthermore, these brain wave patterns can be correlated directly with discrete psychological states.

ALERT STATES OF MIND

Most of us are familiar with alert states of mind in which we're able to focus and concentrate on particular tasks. Then, when we get home at the end of the day and start relaxing, this focus tends to wane. As the evening progresses, we retire to bed and fall asleep. Alertness, relaxation and sleep are three psychological states which we cycle through on a day-to-day basis. However, researchers at The Monroe Institute have discovered that in addition to the old favourites (alertness, relaxation, sleep) there are other stages of consciousness available to us. For instance, the permanent retention of facts and figures in a learning environment can be enhanced by a brain state produced with the help of special sound frequencies. In fact, performance in numerous fields of human endeavour can be optimised by getting into the right "frame of mind" or brain state.

The Monroe Institute has taken its unique blends of sound and released them on stereo audio cassettes. These are available commercially and all that you need to use them is stereo sound equipment and headphones. Even a simple, battery-powered Sony Walkman will do. The technology has been trademarked under the name Hemi-Sync – a shortened version of the phrase Hemispheric Synchronisation. Applications of the Hemi-Sync process extend from treating insomnia and stress right through to rehabilitating victims of stroke and brain trauma. Getting back to the PO contention – that the mind needs a kick to get the foreground talking to the background –

it is possible that foreground/background communication is just another discrete psychological state which we're all capable of experiencing, albeit for brief and intermittent periods. It so happens that certain non-ordinary mind-brain states discovered at The Monroe Institute would appear to conform to this description. Under the influence of carefully sequenced sound frequencies, the number of moments of revelation shows a marked increase. Also, the more often Hemi-Sync is used for this purpose, the more open become the lines of communication between the two systems.

The implications of this are startling. Firstly, we can now tap into areas of the mind which traditionally have remained off limits for all intents and purposes. Secondly, this can be done quickly and easily. Thirdly, the content of the background modality is largely a creative goldmine. Practically, we don't want people charging around the office listening to personal stereos. No problem! Hemi-Sync brain states are easily "learned" and can be recreated by the listener at will.

TOTALLY INTERNALISED

There are other interesting features of the Hemi-Sync creative process. With practice, you can develop the ability to shut down foreground sensory processing and become totally internalised. This further enhances the capacity to delve into inner reaches of the mind. Also, Hemi-Sync sound frequencies have a soothing effect on the brain's emotional centre. It is an intensely and compellingly pleasant experience.

While the FB and de Bono models of mental functioning are completely different, they in no way contradict each other. In fact, when examined side by side, they are perfectly complementary. The FB model explains the sudden occurrence of moments of revelation in the foreground, and it is extremely likely that further investigation will show the background modality to be a hive of lateral thinking activity.

Lastly, a question which must be asked is whether the FB model relates to other theoretical perspectives? *Inter alia*, the Freudian legacy of unconscious and subconscious components of the mind. Is the background construct equivalent to the unconscious? Assuming that in reality they both exist, there may well be a degree of overlap, although this has no implications for creativity.

A more valid isomorphism is the correspondence between the FB model and the model of lateralisation of brain function. The latter is the preferred domain of human resource practitioners and states that the right brain hemisphere is the seat of creative expression. But owing to society's cultural orientation towards left brain or logical/rational abilities, the right brain is left out in the cold, so to speak. A clue which reinforces the correspondence between the two models is the fact that the Hemi-Sync process stimulates a state of electrical interhemispheric synchronisation, which results in "whole brain integration". It is highly probable that the background modality is none other than the right brain. However, in recent times the lateralisation model has taken a few knocks. Primarily because of its physiological bias and empirical evidence which contradicts the clear-cut dichotomy between the two modes of thinking. The FB model, however, takes no liberties with brain physiology. In conclusion, creative thought is available to all of us. The only difference between the average person and "highly creative" individuals is the degree of free-flow communication between the foreground and background areas of the mind. And, as outlined above, this communication is easily facilitated with the use of Hemi-Sync sound technology.

Pierre Roxburgh is the Director of Technology for the Foundation for Human Advancement (Pty) Ltd. FHA is a South African Company that Researches, develops and markets training and development programmes which aim to assist individuals, groups and companies to realise more of their potential. ■

Spada Seminar

The Sales Promotion and Design Association (Spada) is to hold a two day seminar on 10 & 11 August 1992. The seminar will concentrate on sales promotion and design as strategic marketing tools and will allow delegates to gain insight into the effective workings of below-the-line advertising agencies, with reference to both national and international industries. Guest speaker will be internationally acclaimed promotions and design pundit, Roger Hyslop, group managing director of the Triangle Group, which has offices throughout Europe and in Hong Kong. Clients include, among others, Cadbury's, Schweppes, Coca-Cola, Birds Eye, Wall's and British Telecom.

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